

DETAILED ACTION

Applicant's arguments filed 10/6/10 have been fully considered but they are not persuasive. See argument below. Previous rejections and other issues not addressed below have been withdrawn.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 25-47 are rejected under 35 U.S.C. 103(a) as being unpatentable over DeWinter-Scailteur (SPN 5252537; 10/12/93) and Carstairs et al. (USPN 5677019; 10/14/97). DeWinter-Scailteur teaches a process for preserving natural flowers comprising a grid for receiving flowers and several process steps of dehydrating flowers wherein flowers are immersed in solvent, DeWinter—Scailteur teaches an infiltration step wherein flowers are immersed in a bath comprising colorants, solvent and polymer (PEG). See column 1 line 48 – column 4 line 54. DeWinter-Scailteur does not teach the dehydration step comprising alcohol (column 3 lines 1-54). However, Carstairs et al. teaches a process for preserving cut flowers using alcohol. It would have been obvious to one having ordinary skill in the art to modify the invention of DeWinter-Scailteur to include alcohol taught by Ando et al. One would have been motivated to do this in order to promote complete dehydration. With respect to amounts and temperatures one would have been expected to determine the optimum amounts and temperatures. One would have been motivated to do this in order properly dehydrate flowers.

Response to Applicant's argument

Applicants argue DeWinter-Scaitleur discloses only a single dehydration step, not three dehydration steps as recited in the instant claims. Applicants maintain that the dehydration steps recited in instant claims are a non-obvious distinction over DeWinter-Scaitleur. Applicants argue that DeWinter-Scaitleur teach only one dehydration step. Applicants explain that the dehydration taught in DeWinter-Scaitleur at column 2 lines 7-12 d and at column 3 lines 21-29 are one in the same. In other words, DeWinter-Scaitleur only teaches one dehydration step. The Examiner does not find Applicants' argument convincing the Examiner maintains that dehydration taught at column 2 lines 7-12 and at column 3 lines 21 differ for reason of record. The Examiner maintains that DeWinter-Scaitleur describes two dehydration steps.

Applicants argue that neither draining nor drying is dehydration step. The Examiner that draining and drying includes the removal of water which is a form of dehydration. Note, dehydration is a broad term which encompasses draining and drying.

Applicants argue that DeWinter-Scaitleur uses molecular sieves. On the other hand, instant claims do not use molecular sieves in the dehydration steps. The Examiner argues that the instant claims employ "comprising" type language which allows for the inclusion of steps, including the step of adding molecular sieves.

Applicants argue that it would not have been obvious to combine the evaporating step taught by Carstairs with DeWinter-Scaitleur. The drying step carried out by Carstairs is typically carried out under mild conditions and basically removes surface water from the washed plant material without evaporating dihydric alcohol from within the plant material. On the other hand, the evaporating step in claim 25 requires bath mixture to be removed from flowers and the fourth

mixture being evaporated in a vacuum or by applying an evaporating temperature. The Examiner reiterates that instant claims do not recite a numerical temperature limitation. The absence of a numerical temperature range disclosed for the instant evaporation step allows for Carstairs to be maintained in the 103(a) of record.

Applicants argue that it would not be obvious to combine DeWinter-Scaitleur with Carstairs, because Carstairs preserves a plant's natural color, while present claims removes all natural pigments in order to dye flowers with other colors. Applicants have amended claims to recite optionally repeating the third dehydration step until all water initially in flowers has been replaced. Applicants point out that the Declaration of 4/29/10 in Annex A support the removal of all natural pigments. The Examiner argues that optionally repeating the third step does not require all natural pigments to be removed by the instant process for the purpose of employing dye to color flowers. Thus, the instant claims do not require this limitation as presently amended. The repeating of the third step is optional rather than required.

Applicants argue that the Declaration and Annexes contain objective evidence for nonobviousness. The results include significant, synergistic advantages like obtaining colorless flowers, flowers with lower moisture content, lowering solvent consumption, all resulting in the flowers obtained having a more fresh and realistic appeal. The Examiner argues that Declaration does not provide a side-by-side comparison of instant claims to DeWinter-Scaitleur - Carstairs invention.

Applicants argue that DeWinter-Scaitleur does not teach a process involving two dehydration steps. Therefore, DeWinter-Scaitleur does not teach a process comprising three dehydration steps as recited in the instant claims. The Examiner maintains that DeWinter-

Scaileur teaches more than one drying or dehydration step. See column 2 lines 7-12 and column 3 lines 21-29 where it is taught that natural flowers undergo a dehydration stage involving the exposure of organic solvents to the flowers to make the flowers transparent and colorless and where a dehydration step using molecular sieves followed by an infiltration step is taught. Thus, the Examiner maintains that DeWinter-Scaileur teaches at least two dehydration steps. DeWinter-Scaileur appears to suggest that colorless flowers can be obtained with only two dehydration steps as opposed to the three dehydration steps recited in the instant claims. There is nothing unobvious in adding dehydration steps on a product. One would have expected that additional dehydration steps would reduce the moisture content of the flowers. Dehydration steps are commonly used in the art to control moisture content in products.

Applicants provide a declaration containing Annexes A and B. Applicants argues that the Annexes produced flowers in a three step dehydration process which are substantially colorless and that have low moisture content in comparison to the one step dehydration process disclosed in DeWinter-Scaileur. Applicants also point out in the declaration that the instant process comprising the three step dehydration process the solvent consumption (due to solvent recycle) is much lower than water consumption in DeWinter-Scaileur. Lastly, the flowers obtained from the instant process last longer the flowers produced by the process of DeWinter-Scaileur. The Examiner reiterates that there is nothing unobvious in adding dehydration steps to DeWinter-Scaileur. Additional dehydration steps would automatically produce a colorless flower having a longer life. Applicants have provided no data demonstrating that instant flowers last longer than flowers obtained from DeWinter-Scaileur. The is nothing unobvious to recycle solvent. This is often done to lower cost and reduce exposure to the environment.

The Applicants argue that if one assumes that DeWinter-Scaileteur teaches two dehydration steps, it is clear that DeWinter-Scaileteur does not teach three dehydration steps as presently claimed. The three dehydration steps in the instant process, as opposed to one or maybe two dehydration steps taught by DeWinter-Scaileteur, allow for substantial removal of soluble natural substances, allowing for a better preservation process. In addition, the flowers obtained with the instant process last longer because the soluble natural substances are substantially removed. Applicant points to paragraph 67 of the specification to support this position. The Examiner argues that while it may be true that the instant process including the three dehydration steps may be more economically favorable than the one or may be two dehydration step process disclosed in DeWinter-Scaileteur, (Note, the resulting alcohol yielded from the third step of the instant process may be used in the second step of another batch as well as the alcohol yielded from the second step may be used in the first step of another batch), the Applicant does not provide any evidence or showing that the instant process, in comparison to DeWinter-Scaileteur's process involving only one dehydration step, would yield longer lasting flowers.

Applicant points out that independent claim 25 recites, ""implementing an evaporation step, the evaporation step comprising the bath mixture being substantially removed from the flowers and the fourth mixture being substantially evaporated in vacuum or by applying an evaporating temperature."" Applicant further argues that in comparison to the instant evaporation step, Carstairs' evaporation step is insignificant resulting from temperature used by Carstairs, i.e. only a few components will evaporate from Carstairs' aqueous mixture using the temperature disclosed in Carstairs. The Examiner would like to point out that term "substantially" in claim 25 appears to be new matter. The Examiner would also add that instant claims do not recite a

numerical temperature limitation. The combination of new matter with no numerical temperature range disclosed for the instant evaporation step allows for Carstairs to be maintained in the 103(a) of record.

The Applicant argues that evaporation and dehydration can not be considered the same. The Examiner argues that while the two terms are not identical, it is important to note that both terms denote the removal of liquid. The Examiner further argues that dehydration can be considered a form of evaporation and the terms are being treated as such in the rejection of record.

Applicant argument that the Examiner failed to make obvious a case for rejection under 35 USC 103(a) because the Examiner not identify a reference for each limitation of claim 1, including selecting and cutting the flowers, at least three dehydration steps and the evaporation step. DeWinter-Scaileteur teaches only one dehydration step as opposed to the three conservative dehydrations recited in instant claims. The Examiner argues that for the instant process it is inherent that an artisan would have to select and cut flowers in order to practice the process. Therefore, DeWinter-Scaileteur process for preserving natural flowers would inherently involve identifying/selecting a flower and then cutting the selected flower prior to preserving the flower. With respect to the dehydration step, DeWinter-Scaileteur teaches more than one drying or dehydration step. See column 2 lines 7-12 and column 3 lines 21-29 where it is taught that natural flowers undergo a dehydration stage involving the exposure of organic solvents to the flowers to make the flowers transparent and colorless and where a dehydration step using molecular sieves followed by an infiltration step is taught. Thus, DeWinter-Scaileteur teaches at least two dehydration steps. DeWinter-Scaileteur appears to suggest that colorless flowers can be

obtained with only two dehydration steps as opposed to the three dehydration steps recited in the instant claims.

Applicant argues that it is impossible in a one-step dehydration process to obtain clear or white flowers. The Examiner argues that DeWinter-Scaileur teaches that natural flowers undergo a dehydration stage involving the exposure of organic solvents to the flowers in order to make the flowers transparent and colorless (column 3 lines 21-29).

Applicant argues that it would not be obvious to combine Carstairs et al with DeWinter-Scaileur to include alcohol to promote complete dehydration. Carstairs et al teaches a method of preserving plants' natural color, whereas instant claim 1 removes all natural pigments in order to dye flowers with other colors. The Examiner reiterates that claims do not recite that all natural pigments are removed by instant process for the purpose of using dye to color flowers. For this reason, the recitation of such a statement in Applicant's response has no patentable significance since the limitation is not in the claims. Moreover, the Examiner maintains that the purpose for employing Carstairs et al is to show that alcohols are used to facilitate the complete dehydration of flowers (see claims). Thus, since both DeWinter-Scaileur and Carstairs et al are involve the dehydration of flowers using organic solvents, it would have been obvious to modify the invention of DeWinter-Scaileur to include the alcohols taught by Carstairs et al to facilitate flower dehydration.

Telephonic Inquiry

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ALTON N. PRYOR whose telephone number is (571)272-0621. The examiner can normally be reached on 8:00 a.m. - 4:30 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Johann Richter can be reached on 571-272-0646. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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/Alton N. Pryor/
Primary Examiner, Art Unit 1616